

Auto Technology

Curriculum Plan 2022-2023



Area of Concentration: T9

CTSO: SkillsUSA

Program Courses

EMIS Course Code	Course Name	Grade	Is this course a CTAG?
177000	Ground Transportation Maintenance	10	Yes
177001	Ground Trans Engine and Power Train	10	No
177006	Auto Engine Performance	11	No
177002	Ground Trans Electrical	11	No
177030	Auto Braking Systems	12	No
177031	Auto Steering and Suspension Systems	12	No

Industry Credentials/Certifications

Industry Credentials Offered	ODE Points Available	Completed during Grade
ASE Maintenance and Light Repair	3	10
ASE Engine Performance	3	10
ASE Engine Repair	3	11
ASE Electrical	3	11
ASE Brakes	3	12
ASE Steering and Suspension	3	12

College Credit Opportunities

Course Name	College	Credit Hours	Completed during Grade
CTAUT005 Introduction to Automotive Service and Repair	CTAG	2	10
AUT 1100 Consumer Automotive	Sinclair Community College	2	Credit is earned by graduating from a secondary career technical automotive program.
AUT 1108 Automotive Engine Systems	Sinclair Community College	4	Students must successfully complete ASE student certification exam A1-Engine Repair with a passing grade of 70% or higher to be awarded credit.
AUT 1114 Automotive Electrical/Electronic Systems I	Sinclair Community College	3	Students must successfully complete ASE student certification exam A6- Electrical/Electronic Systems with a passing grade of 70% or higher to be awarded credit
AUT 1116 Automotive Steering and Suspension Systems	Sinclair Community College	3	Students must successfully complete an ASE student certification exam A4-Suspension and Steering with a passing grade of 70% or higher to be awarded credit.
AUT 1165 Automotive Brake Systems	Sinclair Community College	3	Students must successfully complete an ASE student certification exam A5-Brakes with a passing grade of 70% or higher to be awarded credit for the above identified course.

Work-Based Learning Opportunities

Work on customers vehicles	On the job placement opportunities
CTSO competitions	

Tasks

<ul style="list-style-type: none"> • Operate transportation equipment to demonstrate function or malfunction. • Adjust equipment to ensure optimal performance. • Inspect vehicles to determine overall condition. • Record information about parts, materials or repair procedures. • Test mechanical systems to ensure proper functioning. • Replace worn, damaged, or defective mechanical parts. • Adjust vehicle components according to specifications. • Repair non-engine automotive or vehicle components. • Confer with coworkers to coordinate work activities.

- Estimate costs for labor or materials.
- Read work orders or descriptions of problems to determine repairs or modifications needed.
- Troubleshoot equipment or systems operation problems.
- Confer with customers or users to assess problems.
- Align equipment or machinery.
- Disassemble equipment for maintenance or repair.
- Reassemble equipment after repair.
- Test electrical circuits or components for proper functioning.
- Clean work areas.
- Inspect mechanical components of vehicles to identify problems.
- Plan work procedures.
- Service vehicles to maintain functionality.
- Repair worn, damaged, or defective mechanical parts.
- Disassemble equipment to inspect for deficiencies.
- Repair defective engines or engine components.
- Service heating, ventilation or air-conditioning (HVAC) systems or components.
- Service green vehicles to make repairs or maintain good working order.
- Rebuild parts or components.
- Inspect gas systems or components to identify leaks or other potential hazards.
- Rewire electrical or electronic systems.
- Install vehicle parts or accessories.

Auto Technology Program of Study

Aligned with Sinclair – Automotive Technology AUT.S.AAS

Secondary	9	English 9	Algebra I or Geometry	Physical Science	World History	PE/PE	Health/ Career Exploration	Elective
	10	English 10	Geometry or Algebra II	Biology	U.S. History	Elective	Ground Transportation Maintenance 177000	Ground Trans Engine and Power Train 177001
	11	English 11	Algebra II or Pre-Calculus	Chemistry or Environmental Science	American Government	Elective	Auto Engine Performance 177006	Ground Trans Electrical 177002
	12	English 12	Adv Math	Elective	Elective	Elective	Auto Braking Systems 177030	Auto Steering and Susp Systems 177031

Post-Secondary	Fall Year 1	AUT 1102 Introduction to Automotive Service	AUT 1108 Automotive Engine Systems	AUT 1114 Auto Electrical/Electronic Systems I	MAT 1110 Math for Technologists	Social & Behavioral Science Elective
	Spring Year 1	AUT 1115 Auto Engine Performance I	AUT 1116 Auto Steering & Suspension Systems	AUT 1142 Auto Manual Transmission & Driveline	ENG 1101 English Comp I	Arts & Humanities Elective
	Fall Year 2	AUT 1146 Auto HVAC Systems	AUT 1165 Auto Braking Systems	CAM 1109 Fund of Tooling and Machining OR CAM 1180 Welding & Metal Joining I	COM 2206 Interpersonal Communication	Automotive Elective

	Spring Year 2	AUT 2214 Auto Electrical/Electronic Systems II	AUT 2215 Auto Engine Performance II	AUT 2241 Auto Transmission Systems	AUT 2250 (Automotive Service Operations) OR AUT 1170 (Automotive Internship I) AND AUT 1171 (Automotive Internship II) AND AUT 1172 (Automotive Internship III) AND AUT 1173 (Automotive Internship IV)
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Key	Required Course	Recommended Elective Courses	High School Career- Technical Courses Bold =College Credit Opportunity
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